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ABSTRACT

Tenth-grade students in Arizona school to work (STW) regional partnerships were polled in 1997, 1998, and 1999, to determine whether systemic change was occurring across the state. Study results were mixed. Three activities increased significantly over the baseline year: class projects, computer use, and volunteerism. The use of career inventories declined over the same period. The role of adults in helping students explore career choices remained relatively stable. Further, the number of students who had some idea of their career interests had not changed significantly. Gender differences still existed and were largely unchanged. Fewer students reported taking courses related to their career interests. The relationship of participation in career-related activities to an ability to state a career interest continued to be strong. Students felt job shadowing, business mentors, and internships would be most helpful. However, fewer students participated in these activities. The participating students were better able to articulate their career interests and, in general, had more frequent and positive attitudes about participation in STW. Statewide programs reported positive student outcomes as a result of STW activities. Evidence of systemic change was beginning to be seen. Most significantly, class projects, computer use, and volunteer projects showed consistent gains over the three years. (YLB)

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Tenth Grade Students' Perceptions of Career Preparation and Work Experience in Arizona Schools: Three-Year Trends and 1999 Results

ED 438 403

Arizona School To Work Briefing Paper #19 *January 2000*

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by
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Businesses, educators, and community members throughout Arizona have participated in developing a system of School To Work (STW) opportunities for students during the past four years. In accordance with the STW Opportunities Act of 1994, the state system is comprised of partnerships that support School-Based Learning, Work-Based Learning, and activities that connect the two. Arizona's STW system is supported by a grant from the U.S. Departments of Labor and Education and administered through the School To Work Division of the Office of Workforce Development Policy under the auspices of the Arizona Department of Commerce.

An annual survey of tenth grade students is one component of the statewide evaluation plan designed by the Morrison Institute for Public Policy. Tenth grade is a benchmark year for students' attitudes toward and participation in career activities according to the STW Opportunities Act.

This briefing paper presents the results of the third administration of the tenth grade survey. Results are compared to data collected in 1997 and 1998.

Survey Design and Methodology: An Overview

The student survey is used to measure systemic change over time in the regional STW partnerships. It is posited that as the STW system is developed statewide, students' ability to define career interests will improve, participation in career-related activities, and adult mentoring will increase.

In 1999 the tenth grade survey was used in the newly formed Maricopa County STW partnerships to determine if there is a difference between participating students and non-participating students. It is posited that STW participation will make a difference in student indicators.

The survey, designed by a cadre of evaluators representing each of the state-funded regional STW partnerships was designed to:

1

1) determine the extent to which Arizona tenth grade students have selected a career "major" or a Career Pathway (as defined by the Arizona Department of Education),
2) examine student participation in career preparation/ work experiences appropriate for their grade level,
3) assess the impact of career-related activities as helpful to students in selecting a career interest,
4) explore the extent to which students have received career guidance from adults, and
5) examine whether students take high school courses related to their career interests.

Each state-funded STW partnership is responsible for collecting survey data on a sample of schools and students in their partnership. The survey is administered to general studies classrooms in randomly selected schools in regional partnerships each spring. General studies classes rather than classes with a vocational or STW emphasis are surveyed in order to avoid biasing the results. Surveys were received from more than 2,000 students in 1997, 1,057 students in 1998 and 1,144 students in 1999. Survey results are representative of student enrollment by gender and region.

In Maricopa County students from classrooms in schools participating in a STW partnership were compared with students in the same school who did not participate. There were 287 participating students and 274 non-participating students compared.

Summary of Results from Regional Partnerships

Career Selection

Students selected the "Career Pathway" (as defined by the Arizona Department of Education) that they were interested in. Career Pathway choices by gender are presented in Table 1. In both 1998 and 1999 there are

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marked differences in career interests by gender. Girls showed a preference for careers in Health Services, and Social or Human Services. Ten times more boys than girls chose Engineering and Industrial Systems as a career area of interest.

Other differences in participation by gender were also evident. When asked if all jobs are equally suited for men and women, the share of students who agree has declined from 62.3% in 1997 to 58.3% in 1999. Overall, more girls than boys agree with the statement.

Table 1
Career Pathway (i.e., Area of Interest) Choices by Gender

Male		Career Choices by Pathway	Female	
1998	1999		1998	1999
17.2%	14.2%	Arts, Communications, and Humanities	18.9%	18.1%
9.9%	13.5%	Business Systems	11.1%	15.5%
35.8%	37.4%	Engineering/ Industrial Systems	3.5%	5.1%
9.9%	9.5%	Social/Human Services	19.9%	19.9%
7.8%	9.1%	Health Services	29.1%	32.9%
3.8%	5.7%	Natural Resources	5.7%	7.3%
15.6%	22.0%	"Other"	11.3%	13.5%

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Participation in Career-Related Activities

More than half of the students surveyed participated in seven of fourteen career preparation activities over the three-year period. The share of participating students rose in three areas, volunteering, computer use for career exploration, and class projects when compared to the baseline year. Details are presented in Table 3.

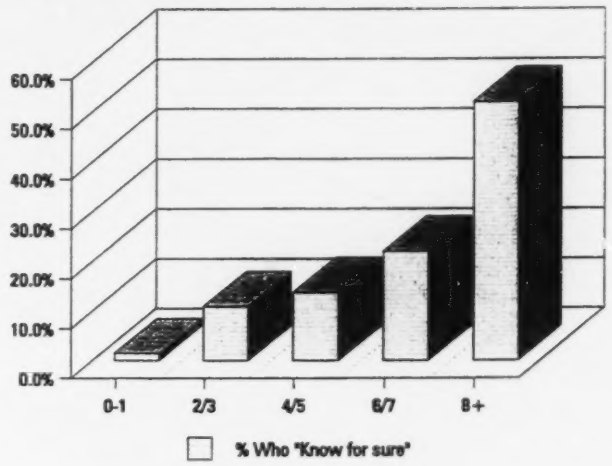
Impact of Participation on Career Selection

In spring 1999, nearly all students (91.9%) indicated that they had at least an idea of their career area of interest. About one third (36.3%) of students were certain of their career interests, and more than half (55.6%) had some idea. Contrary to expectations, the share of students who do not have an idea rose from 5.7% in 1997 to 6.4% in 1998, and 8.1% in 1999.

The share of students who "know for sure" what their career interests are increases as participation in career-related activities rises.

Nearly forty percent of the students who had participated in eight of more activities were sure of their career interests. Only 1.2% of students who had participated in one activity were sure of their interests. This relationship is depicted in Figure 1.

Figure 1
Student Ability to Define Interests by Activity Level
Spring 1998 Arizona STW 10th Grade Survey



Students were asked to indicate the helpfulness of each activity that they participated in. Job shadowing, paid internships and business mentors were rated as very helpful by at least half of the students. Activities presented in Table 2 are ranked by the percent of students that rated them very helpful.

Table 2
Student rating "Very Helpful"

55.3%	Job Shadowing
51.6%	Paid Internships
51.3%	Business mentors
44.4%	Internships without pay
43.4%	Computers
39.0%	Portfolios
36.1%	Volunteering
34.9%	Field trip
31.3%	Work for pay not related to career
31.1%	Class Projects
29.7%	Guest speakers
27.2%	Learning about jobs in class
26.1%	Career Fair
23.3%	Career Inventory

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Table 3
Arizona Tenth Grade Survey Results: Participation in Career Preparation and Work Experiences

Activity (ranked by % "Yes" responses)	1997	1998	1999	Significant Differences 1998-99	Significant Differences 1997-99
Have you ever **learned about jobs or careers in class?**	76.6%	79.8%	77.4%	-	-
Have you ever had **guest speakers** come to your class to talk about their jobs?	75.4%	79.8%	78.1%	-	-
Have you ever **worked for pay** (but the job had nothing to do with school or your career interests)?	74.2%	71.1%	65.8%	-5.3	-8.4
Have you ever **volunteered** in the community?	54.4%	61.6%	59.6%	-	+5.2
Have you ever used a **computer** at school to learn about or see people doing different jobs?	54.7%	60.3%	66.1%	+5.8	+11.4
Have you ever taken a **field trip** to a workplace?	54.5%	59.0%	53.8%	-5.2	-
Have you ever taken a **Career Inventory, aptitude test or other test?**	54.9%	55.3%	50.0%	-5.3	-4.9
Have you ever worked on a **class project** that taught about jobs?	47.2%	52.3%	51.5%	-	+4.3
Have you ever gone to a **Career Fair?**	44.3%	44.4%	46.1%	-	-
Have you ever **job shadowed** (followed someone around their job)?	36.5%	42.1%	37.5%	-4.6	-
Have you ever worked (**with pay**) in an **internship?**	29.1%	33.8%	29.1%	-4.7	-
Have you ever worked (**without pay**) in an **internship?**	26.9%	32.0%	25.3%	-6.7	-
Have you ever kept a **career-related portfolio, file, or album?**	21.8%	24.3%	21.8%	-	-
Have you ever had a **business mentor?**	14.3%	20.4%	16.4%	-4	-

Adult Influences on Students' Career Selection

As illustrated in Table 4, family has consistently been rated as very helpful in helping students to identify a career interest. Teachers and friends rank second.

Table 4
Adult Influences on Students' Career Selection

Group	1997	1998	1999
Family	93.3	90.3	90.2
Teacher	79.5	75.3	76.6
Friends	77.3	79.3	76.2
Counselor	58.4	55	58.7
Community	58.6	61.1	57.4
Employer	47.7	50.8	51.8

High School Curriculum

The share of students who indicated that courses related to their interests are available at their high school remained stable. Only 43.7% of students answered "yes" in 1999, compared to 44.4% in 1997. The share of students who have taken any courses related to their career interests has decreased each year. Originally 50.7% of students in 1997 took classes followed by 49.5% in 1998 and 43.9% in 1999.

Summary of Results from Maricopa Partnerships

Participating versus Non-Participating Students

A separate study was administered in 1999 to Maricopa County STW partnerships to determine whether or not there is a difference between students who participate in STW and their counterparts who do not.

The study did show that STW students

- are better able to articulate their career interests,
- more often report that courses related to their career interests are available at their high school and have taken courses related to their career interests,
- more often describe teachers, business persons, community members, or family members as helpful,
- more often characterize the career guidance offered at school as helpful,
- have participated more often in the majority of STW activities and, overall, have found them to be more helpful.

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Conclusions

Tenth grade students in the regional partnerships were polled in 1997, 1998, and 1999 to determine if systemic change was occurring across the state. The results of the study are mixed. Three activities have increased significantly over the baseline year: class projects, computer use and volunteerism. The use of career inventories has declined over the time period.
The role of adults in helping students explore career choices has remained relatively stable. Further, the share of students who have some idea of their career interests has not changed significantly. Gender differences still exist and are largely unchanged. Fewer students report taking courses related to their career interests.

The relationship of participation in career-related activities to an ability to state a career interest continues to be strong. Further, students feel that job shadowing, business mentors and internships would be the most helpful to them. However, fewer students participate in these activities.

In contrast to these mixed indications of the degree to which change has been universally embraced, when students are compared based upon program participation differences are apparent. Participating students are better able to articulate their career interests and, in general, have more frequent and positive attitudes about participation in STW. State-wide programs report positive student outcomes as a result of STW activities.

Recommendations and implications for the partnerships include the following:

- identify and take to scale those programs that have shown the most promise on the local level,
- promote the use of multiple methods for career awareness activities,
- further engage businesses in internships and shadowing experiences, which students have ranked as the most helpful,
- continue to give attention to equity issues,
- consider the important role of the family in program planning and in helping to carry forward the mission of School To Work.

Evidence of systemic change is beginning to be seen. Most significantly, class projects, computer use and volunteer projects have shown consistent gains over the three year period. The degree to which career awareness has been adopted varies by community and school, however a common foundation has been set to help promote system-building. The benefit of STW for individual students has been indicated by comparison to their peers and within individual programs. Data suggest the need to promote those models that work best and to redouble efforts to promote systemic change.

Arizona's SCHOOL TO WORK SYSTEM

For additional information about Arizona's School To Work initiative, contact:

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School To Work is a division of the Arizona Department of Commerce, Office of Workforce Development Policy.

The primary author of this briefing paper was Judy Vandegrift, who passed away in September 1999. It was edited posthumously.